

## DETERMINANTS OF ENVIRONMENTAL DISCLOSURE

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### Abstract

This research aims to analyze and obtain empirical evidence of the determinants of environmental disclosure of basic materials sector companies listed on the Indonesia Stock Exchange (IDX) in 2018-2022. This research is quantitative research with associative methods. The type of data used is secondary data in the form of annual financial reports published on the Indonesia Stock Exchange (IDX) for the 2018-2022 period. Samples were collected using the purposive sampling method. The amount of data collected was 105 data. The data was processed using the Eviews 9 Statistical Program to test the hypothesis using panel data regression analysis with the REM (Random Effect Model) model which was chosen as the most appropriate model analysis. The results show that institutional ownership, audit committee size, and environmental performance simultaneously influence environmental disclosure. Partial institutional ownership has no effect on environmental disclosure. The size of audit committee partially influences environmental disclosure. Environmental performance partially influences environmental disclosure.

Keywords: Institutional Ownership, Audit Committee Size, Environmental Performance, Environmental Disclosure

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### 1. Introduction

The business world continues to develop as it is today, giving companies the freedom to expand their business activities. Companies must always keep up with changes and continue to innovate to meet market needs and demands (Maulana, Ruchjana, & Nurdiansyah, 2021). This is done by the company with the main aim of making a profit, but apart from that the company must also pay attention to the good response from the community and the surrounding environment. Because the success of a company is not only seen from the amount of profit it generates, but the company must also pay attention to the good response from the community and the surrounding environment (Wirmaningsih & Setiawan, 2022).

One way for companies to get a good response from the community and the surrounding environment is by carrying out environmental disclosures, because making environmental disclosures can make the public confident that the operational activities carried out by the company in the community have taken into account applicable environmental standard. The company's attention to the surrounding environment can be found through environmental disclosure reports, these reports can reveal what activities the company has carried out to protect its environment. This report is also made by the company solely to improve the company's good image in the eyes of the public (Ermaya & Mashuri, 2018).

Environmental disclosure is important for companies, this disclosure is not mandatory, there is no law that states that environmental disclosure is mandatory for companies, this

is still voluntary. So, because this disclosure is not mandatory, many companies have not thought about the impact of their operational activities on the community and surrounding environment. One of the things about the company's lack of attention to environmental disclosure which still occurs frequently and is increasing is reported by Tempo.com news may 2021, PT. ANEKA TAMBANG better known as ANTAM is suspected of polluting coastal rivers and damaging the mangrove ecosystem in East Halmahera, North Maluku due to their mining project. Since ANTAM entered operations, agricultural land and plantations on mountain slopes have changed their function to mining areas, as a result, when the rainy season arrives, mining waste easily flows to the coast, and penetrates the sea into fishermen's fishing areas. As a result, several parties have conveyed a number of pressures to the ANTAM company regarding this occurrence. One of the reasons for the pollution was that ANTAM temporarily stopped all mining operations in East Halmahera. From this incident, it can be seen that the company's low awareness and responsibility for the environment has caused a lot of environmental damage, so that the company's sensitivity and concern for the environment must be increased (Tempo.co, 2021).

We can understand the lack of attention from companies regarding their concern and responsibility for the environment through environmental disclosures. Environmental disclosure is important as a form of corporate social responsibility through non financial disclosures contained in annual reports and sustainability reports. In this report, the public and other stakeholders can monitor the activities carried out by the company in terms of environmental management in order to fulfill its social responsibilities. Apart from that, the government also gives full attention to environmental disclosure as evidenced in PP No. 47 of 2012 which regulates Social Responsibility and the environment of limited companies, then PP No. 22 of 2021 Which discusses the implementation of environmental protection and management (Terry & Asrori, 2021).

The aim of this research is to determine and obtain empirical evidence of the influence of institutional ownership, audit committee size and environmental performance simultaneously on environmental disclosure. To find out and obtain empirical evidence of the influence of institutional ownership on environmental disclosure, to find out and obtain empirical evidence of the influence of audit committee size on environmental disclosure, to find out and obtain empirical evidence of the influence of environmental performance on environmental disclosure. So, considering the importance of environmental disclosure in non-financial reports and sustainability reports which contain information about company activities as a form of company responsibility to society and the environment, it is still very appropriate to carry out research with the title the influence of the determinants of environmental disclosure.

## **2. Theoretical Background**

### **2.1 Stakeholder Theory**

Stakeholder theory provides an explanation that companies are business stakeholders who carry out activities not only for their own interests but also for the interests of stakeholders. Stakeholder theory states that companies need support to continue to develop in achieving success, and stakeholders are believed to be able to influence the achievement of company goals. The aim of this theory is also to give rights to stakeholders to be able to obtain direct and clear information regarding anything related to company activities, including environmental activities carried out by the company (Ermaya & Mashuri, 2018). Because stakeholders will certainly provide full support and attention to the activities are considered good. This good activity can ultimately help the

company achieve even better performance. This good assessment from stakeholders can be a consideration for companies in expressing their responsibility towards the environment. Companies that are considered to care about the surrounding environment will definitely disclose, environmental information in the company's annual report, this is done so that the company's image is maintained in the eyes of everyone, especially stakeholders (Wirmaningsih & Setiawan, 2022).

## 2.2 Legitimacy Theory

Legitimacy theory explains the importance of companies running business while still paying attention to their boundaries. This theory encourages companies to continue to behave well by considering the surrounding environment. This consideration of the environment will encourage companies to continue to ensure that the activities they carry out are well received by the community. Because this theory places more emphasis on good relationships and interactions between companies and society (Oktariyani & Rachmawati, 2021). The relationship between companies and society encourages companies to create harmony with the surrounding environment. If harmony occurs, society will be more open to the company's activities, but on the other hand, when disharmony occurs, the company will face a threat to its legitimacy. This is because the public believes that companies must be more responsible for the environment because companies are the main source that causes damage to the environment (Juniartha & Dewi, 2017).

## 2.3 Financial Reports

Financial reports are one of the media used by companies as business people to obtain various information. Information obtained from company financial reports is usually about the company's financial performance. This financial report is available to various parties who are considered interested in this information. For this reason, financial reporting must fulfill four main characteristics so that the information can be used as a basis for decision making. The four characteristics that must be present in financial reports are understandable, relevant, reliable and comparable, so that the report can later be used in making wise decisions (Wijayati & Effriyanti, 2019).

Apart from being used by companies for decision making, financial reports are also a reference for management to improve company performance so that in the next period the company can increase its profits. This proves that financial reports are an important part of the company. Apart from companies, there are several parties who consider financial reports to be important, namely for investors. For investors, financial reports are used as a basis for determining investments and making decisions, because good financial reports will certainly make the company's performance good in the eyes of investors (Lestari & Jayanti, 2019).

## 2.4 Company Performance

Performance is the company's achievement in order to achieve its goals as measured by assessment. One way for a company to be able to compete with other companies is that the company must be able to have good performance. Good performance in a company is a measure of how efficiently and effectively a manager can achieve the desired goals. In achieving this goal, it can be concluded that company performance is something that can measure the success achieved by a company over a certain period of time (Nugroho & Laily, 2019).

Measuring a company's success can be done in various ways, not only improving it from a financial perspective but also from a non-financial perspective. From a non-financial perspective, such as good corporate governance and environmental disclosure. This environmental disclosure can later improve relations between the company, society, stakeholders and ultimately even improve the company's performance and good name by increasing the transparency of environmental information disclosure (Jurnali & Adfiani, 2021).

### 2.5 Corporate Social Responsibility

Corporate social responsibility is a form of company commitment and responsibility to contribute to the surrounding environment and society at large. This contribution regarding Corporate social responsibility (CSR) policy is also outlined in government policy law number 2007 which regulates disclosure and reporting obligations related to Corporate social responsibility (CSR) for companies to carry out social and environmental responsibilities.

Implementing Corporate Social Responsibility (CSR) is not only responsible for the environment and the results can be beneficial for society but can also be beneficial for the company, namely creating a good company image in the eyes of the public so that it can increase its good name and also grow a sense of pride. Apart from a sense of pride for companies, implementing Corporate Social Responsibility (CSR) can also encourage companies to make it easier to obtain permission from the government and the public for the business implementation that the company will carry out because it is considered transparent in operational standards and has concern for the environment and surrounding communities. One of the indicators for Corporate Social Responsibility (CSR) Disclosure in annual reports is the Global Reporting Initiative or GRI. The Global Reporting Initiative (GRI) is one organization that provides a sustainability reporting framework, which is used by organizations in all countries. The newest standard owned by GRI is GRI-G4. GRI-G4 consists of several indicators, namely economic performance indicators, environmental performance and social performance (Sekarwigati & Effendi, 2019).

### 2.6 Environmental Disclosure

Environmental disclosure is part of Corporate Social Responsibility as a form of responsibility carried out by the company. The public can see this accountability through the disclosure of environmental information contained in the company's annual report or sustainability report. Regulation issued by the Financial Services Authority No.29/POJK.04/2016 Article 4 states that in company reports, namely the annual report, it must contain details regarding the description of activities carried out by the company which must be related to its social and environmental responsibilities. Through a description of this activity, the company can better reveal the various information needed as an intermediary for the company, investors and the public. This can also be used as a tool for decision makers and to support the company's success (Sari, Agustin, & Mulyani, 2019).

Apart from being used to support the company's success, environmental disclosure can also improve the company's good name and image in the eyes of the public. Because this disclosure will definitely make the company's image better than before. This can also have an impact on the company's progress because more investors will come to invest in the company because of the good image the company has (Ermaya & Mashuri, 2018).

## 2.7 Institutional Ownership

Institutional ownership is an institutional shareholder in the form of an entity that has an ownership level according to the Financial Services Authority of at least 5% of institutional shares. Companies that have institutional ownership levels of more than 5% or greater certainly have the ability to monitor management. By monitoring management, the presence of institutional ownership of more than 5% is able to encourage management to disclose the company's annual report (Fathurohman, Purwohedi, & Armeliza, 2022).

Apart from encouraging disclosure of annual reports by management, the high level of institutional ownership will create effective monitoring efforts. This supervision will prevent bad behavior by managers. So the presence of institutional ownership is expected to encourage more optimal monitoring of the performance carried out by managers, one of which is by continuing to optimize their performance in terms of environmental disclosure (Ermaya & Mashuri, 2018).

## 2.8 Audit Committee Size

The audit committee is a committee formed by the board of commissioners. Comply with audit committee regulations stipulated by BAPEPAM Kep-29/PM/2004, namely a committee formed by the company's board of commissioners whose members can be appointed and dismissed by the board of commissioners. The existence of an audit committee is expected to be able to identify matters that require attention and is expected to provide comprehensive supervision and protection to stakeholders (Nilasari & Setiawan, 2019).

The function of the audit committee, apart from carrying out supervision, can also provide insight into problems within the company, one of which is environmental disclosure that the company should make. So a large number of audit committees is also important for control in a company. This means that the more audit committees a company has, the more effective the monitoring will be and the environmental disclosure will also be better (Wardani & Haryani, 2018).

## 2.9 Environmental Performance

Environmental performance is an assessment of the efforts made by a company as a form of concern and shows its responsibility towards the environment for what is produced by its operational activities. Good company operational activities will certainly have a good impact on the company. Companies that have good activities will certainly be more open in maximizing environmental performance in the company's annual report. In environmental performance, the company will receive a value given to the company for its efforts in preserving the environment.

This environmental performance is measured using the Company Performance Rating Assessment Program in Environmental Management or PROPER, a program created and assessed by the Ministry of Environment and Forestry to encourage companies to comply with all environmental management in accordance with Regulations stipulated by the Minister of the Environment Number 5 of 2011 By giving this PROPER award, it is hoped that the company can achieve better environmental excellence. The PROPER rating is distinguished by five colors, namely gold, green, blue, red and black, meaning that the more disclosures a company makes, the higher the PROPER rating the company can achieve (Maulana, Ruchjana & Nurdiansyah, 2021).

## 2.10 Research Hypothesis

Hypothesis in research is a temporary answer to the research problem formulation, where the research problem formulation has been stated in the form of a question sentence. It is said to be temporary, because the answer given is only based on relevant theory, not yet based on empirical facts obtained through data collection. So a hypothesis can also be stated as a theoretical answer to the formulation of a research problem (Sugiyono, 2018:99).

### 2.10.1 The Influence of Institutional Ownership, Audit Committee Size, and

Performance environment simultaneously towards Environmental Disclosure.

Institutional ownership is share ownership owned by an entity. This institutional ownership is considered to have an influence on environmental disclosure, because it is expected to be able to provide better supervision to the company so that the company can be responsible for its environment. The size of the audit committee can have an influence on environmental disclosure, with the existence of an audit committee it will better monitor activities that occur in the company's environment, one of these activities is paying attention to the company's responsibility for disclosing environmental information. Environmental performance is also considered to have an influence on environmental disclosure because environmental performance is an assessment given by the government to companies regarding the company's efforts to preserve its environment. This research tests the independent variable on the dependent variable simultaneously to see the influence of institutional ownership, audit committee size, and environmental performance on environmental disclosure simultaneously. So based on this description, the following hypothesis is formulated:

$H_1$  = It is suspected that Institutional Ownership, Audit Committee Size, and Environmental Performance have a simultaneous influence on Environmental Disclosure.

### 2.10.2 The Influence of Institutional Ownership on Environmental Disclosure.

Institutional Ownership is a form of ownership that comes from outside the company. One form of ownership is usually in the form of an entity. The form of institutional ownership is measured by the percentage of shares owned by institutional shareholders who have at least 5% share ownership. The presence of institutional ownership is expected to be able to provide supervision over the company so that with this supervision the company is able to carry out environmental disclosures.

This is supported by research conducted by (Terry & Asrori, 2021), the results show that institutional ownership has an influence on the quality of environmental disclosure and research conducted by (Ermaya & Mashuri, 2018) the results show that institutional ownership has a significant influence on environmental information disclosure. Based on the theoretical description and previous research:

$H_2$  = It is suspected that institutional ownership has an influence on environmental disclosure.

### 2.10.3 The Influence of Audit Committee Size on Environmental Disclosure.

The audit committee is one of the committees formed by the board of commissioners with the aim of providing input to the board of commissioners. Input provided by the audit committee regarding the company's internal problems. These problems can be in the form of environmental disclosure issues that companies rarely pay attention to. So, with the existence of an audit committee, it is hoped that companies can pay more

attention to their environmental disclosures. This is supported by research conducted by (Nugraheni, Widyastuti, & Fahria, 2021). The results of this research show that the size of the audit committee has a significant positive effect on environmental information disclosure. Based on the theoretical description and previous research:

H<sub>3</sub> = It is suspected that the size of the Audit Committee has an influence on Environmental Disclosure.

#### 2.10.4 The Influence of Environmental Performance on Environmental Disclosure.

One of the performances carried out by a company to prove that the company cares and has a sense of responsibility for the environment is also called environmental performance. Environmental performance is carried out by companies as a form of corporate responsibility towards the surrounding environment and in terms of maintaining environmental sustainability related to company activities. Because good company activities will definitely make the company make environmental disclosures.

This is supported by research conducted by (Wirmaningsih & Setiawan, 2022) the results show that environmental performance has a significant influence on environmental information disclosure, research conducted by (Terry & Asrori, 2021) the results also show that environmental performance influences the quality of environmental disclosure. Based on the theoretical description and previous research:

H<sub>4</sub> = It is suspected that environmental performance has an influence on Environmental Disclosure.

### 3. Methods

#### 3.1 Types of Research

The type of research in this research is quantitative research using an associative approach. An associative approach is used to explain the relationship (correlation) between variables. This type of quantitative associative research is used because this research aims to describe results according to facts and data. This method is called a quantitative method because the research data is in the form of numbers and analysis uses statistics (Sugiyono, 2018:16).

#### 3.2 Place and Time of Research

The place and time of the research is taking data on companies listed on the Indonesia Stock Exchange (IDX). This research uses secondary data by taking documents that are already available. The secondary data used are financial reports, annual reports, PROPER reports and sustainability reports of raw goods sector companies listed on the Indonesian Stock Exchange (BEI) for the 2018-2022 period. Financial report data is obtained through the official website of the Indonesian Stock Exchange ([www.idx.co.id](http://www.idx.co.id)), annual reports and sustainability reports are obtained through the company's official website, reports on the results of the company performance ranking program in environmental management (PROPER) are obtained from the website which is published directly by the Ministry of Environment and Forestry.

#### 3.3 Operational Research Variable

In this research there are 2 research variables, Dependent Variable and Independent Variable. The dependent variable in this research is Environmental Disclosure. Environmental Disclosure is the disclosure of environmental information carried out as a form of company responsibility towards the environment, which contains information

related to the company's environmental activities. The formula for measuring Environmental Disclosure is contained in the journal (Pawitradewi & Wirakusuma, 2020), namely:

$$ED = \frac{\text{Corporate Environmental Information Disclosure Score}}{\text{The total of all environmental information disclosure (GRI)}} \times 100 \%$$

There are three independent variables in this research, namely: Institutional Ownership is concentrated ownership owned by this institution which is expected to help encourage increased supervision of companies. Because institutional ownership is one of the largest shareholders, it can be used as a means to monitor and supervise management performance, especially in terms of environmental disclosure. The formula for measuring Institutional Ownership is contained in the journal (Fathurohman, Purwohedi, & Armeliza, 2022), namely:

$$\text{Institutional Ownership} = \frac{\text{Number of Institutional Shareholdings}}{\text{Total Share Outstanding}} \times 100\%$$

The audit committee is a committee formed by the board of commissioners. The audit committee has the task of identifying matters that are deemed to require attention, including matters relating to the company's internal affairs, one of which is the disclosure of environmental information. Disclosure of environmental information is one of the things that the audit committee pays attention to in carrying out its duties.

The more audit committees a company has, the more it can be said that the company has good supervision. The formula for measuring the size of the Audit Committee is contained in the journal (Abidin & Lestari, 2020), namely:

$$\text{Audit Committee Size} = \sum \text{audit committee}$$

Environmental performance is one of the efforts made by the company, so that the company can maintain environmental sustainability. Environmental performance is measured through the company performance rating program in environmental management or PROPER which is published directly by the Ministry of Environment and Forestry. The environmental performance rating that has been obtained is a form of company achievement in protecting and managing the environment.

Environmental Performance is measured based on the PROPER rating which consists of five color categories, the Ministry of Environment and Forestry provides several categories to obtain the colors provided, namely (Ministry of Environment and Forestry, 2013), Gold, Green, Blue, Red and Black.

Based on PROPER color rating:

Gold = Very good, score = 5

Green = Very good, score = 4

Blue = Good, score = 3

Red = Bad, score = 2

Black = Very Bad, score = 1



### 3.4 Population and Sample

Population is a generalized area consisting of objects or subjects that have certain quantities and characteristics that can be determined by researchers so that they can be studied and then draw conclusions (Sugiyono, 2018). The population of this research is raw goods sector companies listed on the Indonesia Stock Exchange (BEI) during 2018-2022. The total population is 94 companies. Meanwhile, what is meant by sample is part of the number and characteristics possessed by the population (Sugiyono, 2017). The number of samples obtained was 21 companies.

### 3.5 Data Collection Technique

The type of data used is secondary data. The data contains numbers and has been collected to solve problems faced by researchers using data collection techniques. The data collection technique used uses documentation studies where the data is obtained indirectly or obtained by reading, studying and understanding other media sourced from literature, books and company documents (Sugiyono, 2018). Secondary data used in this research is company financial report data, annual reports, sustainability reports, and data from the results of the Company Performance Rating Program in Environmental Management in raw goods sector companies registered in 2018-2022 where the data was obtained through the official website Indonesia Stock Exchange (IDX) [www.idx.co.id](http://www.idx.co.id), each company's website and through the Ministry of Environment and Forestry, website [www.proper.menlhk.go.id](http://www.proper.menlhk.go.id) as well as other sites related to research.

### 3.6 Data Analysis Technique

The data analysis technique in this research uses statistical calculations. The data analysis technique used is Microsoft Excel and the E-Views 9 application. The stages and explanation of data analysis that will be carried out to carry out the test are as follows:

#### 3.6.1 Descriptive statistics

Descriptive statistics are tests that provide an overview or description of data seen from the mean (average), standard deviation, variance, maximum, minimum, sum, range, kurtosis and skewness (Ghozali, 2017: 31).

#### 3.6.2 Model Regression data panel

##### a. Common effect model

The PLS or Common Effect Model (CEM) technique is a combination of time series and cross section data. Then this combined data is treated as a single observation to estimate the model using the OLS method. The PLS or Common Effect Model (CEM) technique ignores differences in individual dimensions and time, or in other words, data behavior between individuals is the same in various time periods (Ghozali, 2017: 214).

##### b. Fixed effect model

Every object is different, at one time it has different possibilities at every time and condition. A model is needed that can show constant differences between objects, even with the same regressor coefficients. To differentiate one object from another object, a dummy variable is used. Approach by including dummy variables (LSDV). The decision to include dummy variables in the fixed effects model cannot be denied will have consequences (trade offs). The addition of this dummy variable will reduce the number of degrees of freedom which will ultimately reduce the efficiency of the estimated parameters (Ghozali, 2017: 223).

### c. Random effect model

Random Effect Model (REM) estimates panel data where disturbance variables may be interconnected over time and between individuals. The Random Effect Model (REM) also needs to be broken down into errors for individual components and errors for time components (Ghozali, 2017: 245).

### 3.6.3 Panel data regression model test

#### a. Chow Test

The Chow test is a test carried out to find out whether the panel data regression technique with the Fixed Effect Model (FEM) is better than the panel data regression model with the Common Effect Model (CEM). The hypothesis of the Chow Test is :

$H_0$ : Using the Common Effect Model (CEM)

$H_1$ : Using the Fixed Effect Model (FEM)

The basis for decision making using the Chow Test is as follows:

- 1) If the Cross section Chi square probability value is  $> 0.05$  then  $H_0$  is accepted and  $H_1$  is rejected
- 2) If the Cross section Chi square probability value  $< 0.05$  then  $H_0$  is rejected and  $H_1$  is accepted

#### b. Hausman Test

The Hausman test is carried out to compare or choose which model is the best between the Fixed Effect Model (FEM) and the Random Effect Model (REM) which will be used to carry out panel data regression. The hypothesis of the Hausman test is as follows:

$H_0$ : Using Random Effect Model (REM)

$H_1$ : Using the Fixed Effect Model (FEM)

The basis for decision making using the Hausman test is:

- 1) If the random cross-section probability value is  $> 0.05$  then  $H_0$  is accepted and  $H_1$  is rejected
- 2) If the random cross-section probability value is  $< 0.05$  then  $H_0$  is rejected and  $H_1$  is accepted

#### c. Lagrange Multiplier Test

The Lagrange Multiplier test is carried out to compare or choose which model is the best between the Common Effect Model (CEM) and the Random Effect Model (REM) which will be used to carry out panel data regression. The hypothesis of the Lagrange Multiplier test is as follows:

$H_0$ : Using the Common Effect Model (CEM)

$H_1$ : Using Random Effect Model (REM)

The basis for decision making using the Lagrange Multiplier test is as follows:

- 1) If the Breusch Pagan Cross-section probability value is  $> 0.05$  then  $H_0$  is accepted and  $H_1$  is rejected
- 2) If the Breusch Pagan Cross-section probability value  $< 0.05$  then  $H_0$  is rejected and  $H_1$  is accepted

### 3.6.4 Data Quality Test

Data quality testing is a data test used to determine whether research data meets the requirements for further analysis, in order to answer the research hypothesis. This data

quality test uses 4 (four) tests, namely normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test.

a. Panel data regression analysis

Panel data regression analysis is used to measure the influence and relationship of independent variables with the dependent variable (Ghozali, 2017: 195).

b. Coefficient of determination

The coefficient of determination aims to measure the extent and extent of the model's ability to explain the dependent variables (Ghozali, 2017:55).

c. Simultan Significant Test

The simultaneous significant test is used to test whether the regression model used is appropriate and shows whether all the independent variables included in the model have a joint influence on the dependent variable (Ghozali, 2017: 56).

d. Partial Significant Test

Partial significant tests are used to determine how far an independent variable individually explains variations in the dependent variable (Ghozali, 2017:57). The partial significance test is used to test the partial influence of each independent variable on the dependent variable.

## 4 Results and Discussion

**Table 1.** Research Sample

No	Stock Code	Company Name
1	ADMG	Polychem Indonesia Tbk.
2	ANTM	Aneka Tambang Tbk.
3	CTBN	Citra Tubindo Tbk.
4	DKFT	Central Omega Resources Tbk.
5	ESSA	Surya Esa Perkasa Tbk.
6	GDST	Gunawan Dianjaya Steel Tbk.
7	INAI	Indal Aluminium Industry Tbk.
8	INCO	Vale Indonesia Tbk.
9	INKP	Indah Kiat Pulp & Paper Tbk.
10	INRU	Toba Pulp Lestari Tbk.
11	INTP	Indocement Tunggal Prakarsa Tbk.
12	IPOL	Indopoly Swakarsa Industry Tbk.
13	ISSP	Steel Pipe Industry of Indonesia Tbk.
14	NIKL	Pelat Timah Nusantara Tbk.
15	SMBR	Semen Baturaja Tbk.
16	SMGR	Semen Indonesia (Persero) Tbk.
17	SPMA	Suparma Tbk.
18	TINS	Timah Tbk.
19	TIRT	Tirta Mahakam Resources Tbk
20	TKIM	Pabrik Kertas Tjiwi Kimia Tbk.
21	UNIC	Unggul Indah Cahaya Tbk.

### 4.1 Research Result

#### 4.1.1 Descriptive statistical analysis

Descriptive statistics are tests that provide an overview or description of data seen from the mean (average), standard deviation, variance, maximum, minimum, sum, range,

kurtois, and skewness (distribution differences) (Ghozali, 2017). The result of the descriptive statistical analysis can be seen below:

**Table 2.** Descriptive statistical analysis

	ED	KI	UKA	KL
Mean	0.180743	0.668689	3.114286	3.095238
Median	0.186813	0.669151	3.000000	3.000000
Maximum	0.208791	0.924232	4.000000	4.000000
Minimum	0.142857	0.019475	1.000000	2.000000
Std. Dev.	0.016341	0.208638	0.399863	0.528492
Skewness	-0.497245	-1.308460	0.021465	0.105378
Kurtosis	2.853848	5.211342	10.86571	3.459151
Jarque-Bera	4.420369	51.35510	270.6869	1.116663
Probability	0.109680	0.000000	0.000000	0.572163
Sum	18.97800	70.21236	327.0000	325.0000
Sum Sq. Dev.	0.027770	4.527083	16.62857	29.04762
Observations	105	105	105	105

Based on the results of the descriptive statistical analysis in table 4.2, the results of the descriptive statistical analysis can be explained which are described as follows:

a. Environmental disclosure

The results of the descriptive statistical analysis in table 4.2 show that the environmental disclosure variable in raw goods sector companies listed on the Indonesia Stock Exchange (IDX) in 2018 - 2022 has a minimum value of 0.142857, a maximum value of 0.208791, an average value of 0.180743 which is greater from a standard deviation value of 0.016341. This shows that the low data deviation in the environmental disclosure variable is caused by an even distribution of data so that it does not cause bias, which means it can be said that the environmental disclosure variable is homogeneous.

b. Institutional ownership

The results of the descriptive statistical analysis in table 4.2 show that the institutional ownership variable in raw goods sector companies listed on the Indonesia Stock Exchange (IDX) in 2018 - 2022 has a minimum value of 0.019475, a maximum value of 0.924232, an average value of 0.668689 which is greater from a standard deviation value of 0.208638. This shows that the data deviation in the low institutional ownership variable is caused by an even distribution of data so that it does not cause bias, which means it can be said that the institutional ownership variable is homogeneous.

c. Size of the audit committee

The results of the descriptive statistical analysis in table 4.2 show that the audit committee size variable in raw goods sector companies listed on the Indonesia Stock Exchange (IDX) in 2018 - 2022 has a minimum value of 1.000000, a maximum value of 4.000000, an average value of more than 3.114286. The size of the standard deviation value is 0.399863. This shows that the low data deviation in the audit committee size variable is caused by an even distribution of data so that it does not cause bias, which means it can be said that the audit committee size variable is homogeneous.

## d. Environmental performance

The results of the descriptive statistical analysis in table 4.2 show that the environmental performance variable in raw goods sector companies listed on the Indonesia Stock Exchange (IDX) in 2018 - 2022 has a minimum value of 2,000,000, a maximum value of 4,000,000, an average value of 3.095238 which is greater from a standard deviation value of 0.528492. This shows that the data deviation in the low environmental performance variable is caused by an even distribution of data so that it does not cause bias, which means it can be said that the environmental performance variable is homogeneous.

## 4.1.2 Panel data regression model

## a. Common Effect Model

The Common Effect Model (CEM) is the simplest panel data model approach because it only combines time series and cross section data. This method uses the Ordinary Least Square (OLS) approach or least squares technique to estimate panel data models. Regression analysis using the Common Effect Model (CEM) can be seen as follows:

**Table 3.** Common effect model regression results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.141117	0.013099	10.77290	0.0000
X1	0.001946	0.006824	0.285220	0.7761
X2	-0.001395	0.003788	-0.368330	0.7134
X3	0.076250	0.013969	5.458360	0.0000
R-squared				
R-squared	0.242833	Mean dependent var	0.180743	
Adjusted R-squared	0.220343	S.D. dependent var	0.016341	
S.E. of regression	0.014429	Akaike info criterion	-5.601871	
Sum squared resid	0.021026	Schwarz criterion	-5.500768	
Log likelihood	298.0983	Hannan-Quinn criter.	-5.560902	
F-statistic	10.79732	Durbin-Watson stat	0.034999	
Prob(F-statistic)	0.000003			

## b. Fixed Effect Model

Fixed Effect Model (FEM) is a technique for estimating panel data using dummy variables to capture intercept differences. And also assumes that the regression coefficients are constant between companies and time. This estimation model is often also called the Least Squares Dummy Variable (LSDV) technique. The regression results using the Fixed Effect Model (FEM) are as follows:

**Table 4.** Fixed effect model regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.178204	0.007316	24.35858	0.0000
X1	-0.002775	0.006624	-0.418859	0.6764
X2	-0.001975	0.000768	-2.571517	0.0120
X3	0.018846	0.007715	2.442822	0.0167
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.989613	Mean dependent var	0.180743	

Adjusted R-squared	0.986664	S.D. dependent var	0.016341
S.E. of regression	0.001887	Akaike info criterion	-9.509953
Sum squared resid	0.000288	Schwarz criterion	-8.903334
Log likelihood	523.2726	Hannan-Quinn criter.	-9.264139
F-statistic	335.5327	Durbin-Watson stat	1.460794
Prob(F-statistic)	0.000000		

### c. Random Effect Model

Random Effect Model (REM) estimates panel data where disturbance variables may be interconnected over time and between individuals. The Random Effect Model (REM) also needs to be broken down into errors for individual components and errors for time components. The regression results using the Random Effect Model (REM) are as follows:

**Table 5.** Random effect model regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.175692	0.007744	22.68866	0.0000
X1	-0.002189	0.006151	-0.355819	0.7227
X2	-0.001892	0.000763	-2.478020	0.0149
X3	0.022170	0.007499	2.956156	0.0039
Effects Specification				
			S.D.	Rho
Cross-section random			0.015517	0.9854
Idiosyncratic random			0.001887	0.0146
Weighted Statistics				
R-squared	0.138426	Mean dependent var	0.009815	
Adjusted R-squared	0.112835	S.D. dependent var	0.002007	
S.E. of regression	0.001891	Sum squared resid	0.000361	
F-statistic	5.409105	Durbin-Watson stat	1.167264	
Prob(F-statistic)	0.001716			

### 4.1.3 Test The Panel Data Regression Model

#### a. Chow test

**Table 6.** Chow test result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	291.178960	(20,81)	0.0000
Cross-section Chi-square	450.348603	20	0.0000

The results of the Chow test show that the cross section Chi square probability value is 0.0000, which is smaller than 0.05 or  $0.0000 < 0.05$ , so it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted, which means the model chosen is the Fixed Effect Model (FEM).

#### b. Hausman Test

**Table 7.** Hausman test result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	3.380333	3	0.3366

The Hausman test can be seen from the random cross-section probability value of 0.3366 which is greater than 0.05 or  $0.3366 > 0.05$  so it can be concluded that  $H_0$  is accepted and  $H_1$  is rejected, which means the model chosen is the Random Effect Model (REM).

c. Lagrange Multiplier Test

**Table 8.** Lagrange multiplier result

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.0000	0.1106	0.0000

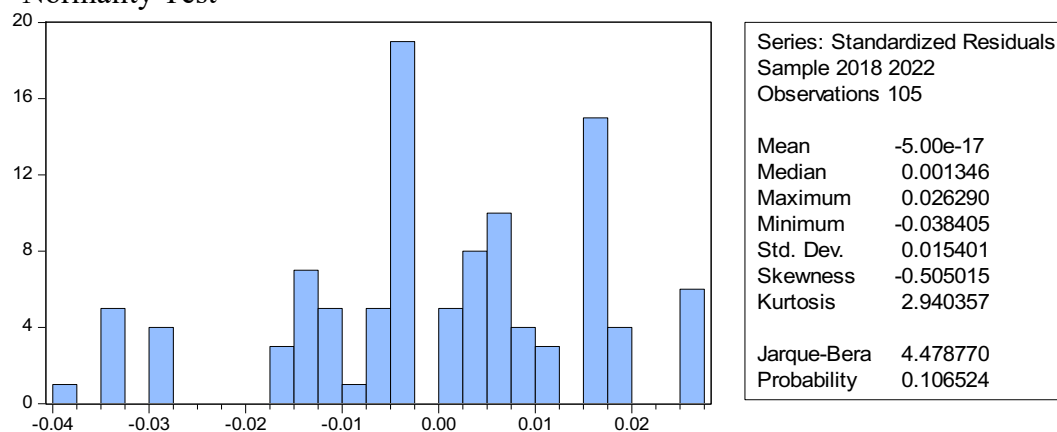
The Lagrange Multiplier test can be seen from the Breusch Pagan Cross-section probability value of 0.0000 which is smaller than 0.05 or  $0.0000 < 0.05$  so it can be concluded that  $H_0$  is rejected and  $H_1$  is accepted, which means the model chosen is the Random Effect Model (REM).

**Table 9.** Conclusion on the Result of Selecting the Panel Data Model

No	Testing	Probabilities ( $\alpha$ )	Result	Conclusion
1.	Chow	$0.0000 < 0.05$	FEM	REM
2.	Hausman	$0.3366 > 0.05$	REM	
3.	LM	$0.0000 < 0.05$	REM	

4.1.4 Data Quality Test

a. Normality Test



**Picture 1.** Normality test result

The results of the normality test using Jarque-Bera can be seen that the Jarque-Bera probability value is 0.106524 which is greater than 0.05 or  $0.106524 > 0.05$  so it can be concluded that this research has a normal distribution.

b. Multicollinearity Test

**Table 10.** Multicollinearity Test Result

X1	X2	X3
1.000000	-0.102415	-0.080251
-0.102415	1.000000	0.312004
-0.080251	0.312004	1.000000

Based on testing the correlation coefficient, it can be seen that each variable produces a coefficient smaller than 0.90 or  $< 0.90$ , so it can be concluded that this research does not have a multicollinearity problem.

## c. Heteroscedasticity Test

**Table 11.** Heteroscedasticity test result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
X1	0.007837	0.004235	1.850584	0.0672
X2	0.000300	0.002350	0.127637	0.8987
X3	-0.002342	0.008668	-0.270133	0.7876

Based on the results of the heteroscedasticity test using the Glejser, it shows that the probability value for each independent variable is greater than 0.05, so it can be concluded that this research does not have a heteroscedasticity problem.

## d. Autocorrelation Test

**Table 12.** Autocorrelation test result

R-squared	0.138426	Mean dependent var	0.009815
Adjusted R-squared	0.112835	S.D. dependent var	0.002007
S.E. of regression	0.001891	Sum squared resid	0.000361
F-statistic	5.409105	Durbin-Watson stat	1.167264
Prob(F-statistic)	0.001716		

Based on the results of the autocorrelation test using the Durbin Watson, the Durbin Watson value of 1.167264 is greater than -2.0 and smaller than +2.0, so it can be concluded that this research has no positive or negative autocorrelation problems.

## 4.1.5 Panel Data Regression Test

**Table 13.** Panel data regression test result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.175692	0.007744	22.68866	0.0000
X1	-0.002189	0.006151	-0.355819	0.7227
X2	-0.001892	0.000763	-2.478020	0.0149
X3	0.022170	0.007499	2.956156	0.0039

- The constant coefficient is 0.175692 units and is positive, meaning that if the variables of institutional ownership, audit committee size and environmental performance are considered constant, then the amount of environmental disclosure in the company is 0.175692 units.
- The coefficient of the institutional ownership variable is -0.002189 units and is negative. This shows that for every 1% increase in institutional ownership, the company's environmental disclosure will decrease by 0.002189 units.
- The coefficient of the audit committee size variable is -0.001892 units and is negative. This shows that for every 1% increase in the size of the audit committee in a company, environmental disclosure in the company will decrease by 0.001892 units.
- The coefficient of the environmental performance variable is 0.022170 units and is positive. This shows that for every 1% increase in environmental performance in a company, environmental disclosure in the company will increase by 0.022170 units.



## 1) Coefficient of Determination

**Table 14.** Coefficient of determination

R-squared	0.138426	Mean dependent var	0.009815
Adjusted R-squared	0.112835	S.D. dependent var	0.002007
S.E. of regression	0.001891	Sum squared resid	0.000361
F-statistic	5.409105	Durbin-Watson stat	1.167264
Prob(F-statistic)	0.001716		

Based on the results of the coefficient of determination test, it can be seen that the Adjusted R-Squared value is 0.112835, so these results indicate that the independent variable can explain the dependent variable by 11.2%, and the remaining 88.8% can be explained by other variables not included in the model study.

## 2) Simultaneous Significant Test

**Table 15.** Simultaneous significant test result

R-squared	0.138426	Mean dependent var	0.009815
Adjusted R-squared	0.112835	S.D. dependent var	0.002007
S.E. of regression	0.001891	Sum squared resid	0.000361
F-statistic	5.409105	Durbin-Watson stat	1.167264
Prob(F-statistic)	0.001716		

Based on the results of the simultaneous significant test, it can be seen that F count is 5.409105 and the F-statistic probability is 0.001716, while to find F table with the number of samples ( $n$ ) = 105 and number of variables ( $k$ ) = 3 while F table can be found through the F distribution table with probability levels  $\alpha=0.05$  with degrees of freedom  $df_2=n-k$ , namely  $105-3=102$  so that the F table is 2.69. Based on the F table values obtained, it can be concluded that  $H_0$  is rejected and  $H_a$  is accepted that institutional ownership, audit committee size, and environmental performance simultaneously influence environmental disclosure.

## 3) Partial Significance Test

**Table 16.** Partial Significance Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.175692	0.007744	22.68866	0.0000
X1	-0.002189	0.006151	-0.355819	0.7227
X2	-0.001892	0.000763	-2.478020	0.0149
X3	0.022170	0.007499	2.956156	0.0039

Based on the results of the t statistical test which was carried out partially to test the influence of each independent variable. To find ttable, namely by looking at the number of sample data of 105, the t statistical test is carried out by comparing tcount with ttable with a probability of  $\alpha=0.05$  with degrees of freedom ( $df_2$ ) =  $n-k-1$ , namely  $105-3-1=101$  where ( $n$ ) is the number of samples and ( $k$ ) is the number of independent variables so that from this test the ttable result is 1.98373, so the results of the t statistical test can be explained as follows:

## a. The influence of institutional ownership on environmental disclosure

Based on the results of the t statistical test in table 4.17, the probability of the institutional ownership variable is  $0.7227 > 0.05$  and the tcount result is 0.355819 and has a negative value, while ttable is 1.98373, so from these results it means t count < t table, namely  $0.355819 < 1.98373$ , so it can be concluded that  $H_0$  is accepted and

Ha2 is rejected, meaning that institutional ownership partially has no effect on environmental disclosure.

b. The influence of audit committee size on environmental disclosure

Based on the results of the t statistical test in table 4.17, the probability of the audit committee size variable is  $0.0149 < 0.05$  and the t count result is 2.748020 and has a negative value, while the t table is 1.98373, so from these results it means  $t \text{ count} > t \text{ table}$ , namely  $2.748020 > 1.98373$ , so it can be concluded Ho3 is rejected and Ha3 is accepted, meaning that partially the size of the audit committee has an effect on environmental disclosure.

c. The influence of environmental performance on environmental disclosure

Based on the results of the t statistical test in table 4.17, the probability of the environmental performance variable is  $0.0039 < 0.05$  and the t count result is 2.956156 and has a positive value, while the t table is 1.98373, so from these results it means  $t \text{ count} > t \text{ table}$ , namely  $2.956156 > 1.98373$ , so it can be concluded that Ho4 rejected and Ha4 accepted, meaning that environmental performance partially influences environmental disclosure.

## 4.2 Discussion

a. The Simultaneous Influence of Institutional Ownership, Audit Committee Size, and Environmental Performance on Environmental Disclosure.

Institutional ownership, audit committee size, and environmental performance simultaneously influence environmental disclosure.

This research is in accordance with the perspective of legitimacy theory in that legitimacy theory explains that the existence of companies in the raw goods sector is considered to have an impact on society and the environment. This impact occurs because companies in this sector produce materials which will later be reused for the company's raw goods. So it is important for companies to run their business while still paying attention to their limitations. Because this theory places more emphasis on the relationship between companies and society, so that people believe that companies will be responsible for their environment.

Environmental Disclosure is the disclosure of information related to the environment. All disclosures of information activities in environmental information disclosure are directly related to company activities in the annual report which must be accounted for by the company as a form of the company's attention and concern for its environment. Through this annual report, the public can monitor the activities carried out by the company in order to fulfill its corporate responsibilities.

b. The Influence of Institutional Ownership on Environmental Disclosure.

The results of this research prove that there is no influence between institutional ownership on environmental disclosure, this is because institutional shareholders do not fully think about the company's responsibility towards the environment. Shareholders mostly only focus on the company's progress and income. Therefore, the level of institutional ownership does not have an impact on increasing the quality of environmental disclosure and this is in line with research conducted by (Sari, Agustin, & Mulyani, 2019) and (Fathurohman, Purwohedi, & Armeliza, 2022) which proves that there is no the influence of institutional ownership on environmental disclosure.

However, this is different from research conducted by (Terry & Asrori, 2021) and (Ermaya & Mashuri, 2018) which stated that institutional ownership influences

environmental disclosure. This research shows that companies that have a lot of ownership will generally pay more attention to their environment. Institutional parties will supervise companies to remain responsible for the environment. So from this research, the higher the institutional ownership in the company, the greater the control over the environment for disclosure.

c. The Influence of Audit Committee Size on Environmental Disclosure.

The results of this research prove that the size of the audit committee has an effect on environmental disclosure. This is because the number of audit committee members is very important for the company's control and supervision of environmental disclosures. In this way, the number of audit committee members is expected to be able to make the company more responsible for its environment. This is in line with research conducted by (Nugraheni, Widyastuti, & Fahria, 2021) which states that the size of the audit committee has a significant positive effect on environmental information disclosure.

However, this is different from research conducted by (Wardani & Haryani, 2018) which states that the size of the audit committee has no effect on environmental disclosure. This research shows that the presence of the audit committee is considered to have no influence in carrying out its duties in terms of assisting the board of commissioners, especially in environmental disclosures. In this research, it is explained that the audit committee will only focus on presenting financial reports that must be disclosed, such as cash flow reports, balance sheets, profit and loss, changes in equity and notes to the financial statements of a company.

d. The Influence of Environmental Performance on Environmental Disclosure.

The results of this research prove that environmental performance influences environmental disclosure. This is because the high or low ranking obtained will motivate the company to disclose the environment. Companies that have good performance will definitely make environmental disclosures. This is in line with research conducted by (Wirmaningsih & Setiawan, 2022), (Chanifah, Ermaya, & Mashuri, 2019), (Sari, Agustin, & Mulyani, 2019), and (Ermaya & Mashuri, 2018) which proves that performance The environment influences environmental disclosure.

However, this is different from research conducted by (Maulana, Ruchjana, & Nurdiansyah, 2021) which states that environmental performance has no effect on environmental disclosure. This research explains that increases or decreases in environmental performance are not accompanied by changes in environmental disclosure. This means that the company does not make environmental disclosure an obligation that must be carried out and is still voluntary.

Environmental performance influences environmental disclosure. This means that companies in the raw goods sector listed on the Indonesian Stock Exchange (IDX) have a high PROPER level. Because the higher the PROPER rating a company achieves, the higher the disclosure of environmental information that the company will make. Good environmental performance will be profitable for the company because the company will also gain a good image in the eyes of the public.

## 5 Conclusion

This research aims to see how much influence institutional ownership, audit committee size, and environmental performance have on environmental disclosure in raw goods sector companies listed on the Indonesia Stock Exchange (IDX) in 2018-2022. Based on

the results of the research and hypothesis testing that has been carried out, it can be concluded as follows:

- a. Institutional Ownership, Audit Committee Size, and Environmental Performance have a simultaneous influence on Environmental Disclosure so that the first hypothesis is accepted.
- b. Institutional Ownership has no influence on Environmental Disclosure so the second hypothesis is rejected.
- c. The size of the Audit Committee has an influence on Environmental Disclosure so that the third hypothesis is accepted.
- d. Environmental Performance has an influence on Environmental Disclosure so that the fourth hypothesis is accepted.

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